



#5

SEQUENCE LISTING

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<120> Neuroprotective Peptides

<130> ORT1436

<140> 09/863,600

<141> 2001-05-23

<160> 49

<170> PatentIn Ver. 2.1

<210> 1

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<221> variant

<222> 1, 2, 3, 6, 9, 10

<223> Description of Artificial Sequence: 1 is Cys, Glu, Ala, alfa amino gamma bromobutyric acid, or homocysteine, 2 is Arg, His, Tyr, Leu, or Val, 3 is Met, Phe, or Ile, 6 is any L or D amino acid, 9 is Asp, Glu, Ile, Leu, or Val, 10 is Cys, Lys, Ala, alfa amino gamma bromobutyric acid, or homocysteine

<400> 1

Xaa Xaa Xaa Gly Pro Xaa Thr Trp Xaa Xaa
1 5 10

<210> 2

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<221> variant

<222> 2, 3, 4, 5, 8, 11, 12

<223> Description of Artificial Sequence: 2, 4, 5, 11 and 12 is any L or D amino acid, 3 and 8 is Cys

<223> Description of Artificial Sequence: Synthetic peptide

<400> 2

Tyr Xaa Xaa Xaa Xaa Gly Pro Xaa Thr Trp Xaa Xaa
1 5 10

<210> 3
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> variant
 <222> 1, 3, 4, 5, 6, 9, 12, 13, 14, 15, 16
 <223> Description of Artificial Sequence: 1, 3, 9, 13, 14, 15 is any L or D amino acid, 4 is Cys, Glu, or Ala, 5 is Agr, His, or Tyr, 6 is Met, Phe, or Ile, 12 is Cys, Lys, or Ala

<400> 3
 Xaa Tyr Xaa Xaa Xaa Xaa Gly Pro Xaa Thr Trp Xaa Xaa Xaa Xaa Xaa
 1 5 10 15

<210> 4
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> variant
 <222> 1, 3, 5, 6, 9, 12, 14, 15, 16
 <223> Description of Artificial Sequence: 1, 3, 9, 14, 15, 16 is any L or D amino acid, 5 is Arg, His, or Tyr, 6 is Met, Phe, or Ile, 12 is Cys, Lys, or Ala

<400> 4
 Xaa Tyr Xaa Cys Xaa Xaa Gly Pro Xaa Thr Trp Xaa Cys Xaa Xaa Xaa
 1 5 10 15

<210> 5
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> variant
 <222> 1, 3, 5, 6, 9, 12, 14, 15, 16
 <223> Description of Artificial Sequence: 1, 3, 13, 16 is any L or D amino acid, 4 is Cys, Glu, or Ala, 5 is Arg, or His, 6 is Met, or Phe, 9 is Ile, Leu, Thr, Met or Val, 12 is Asp or Val, 14 is Gly, Lys, Leu, Gln, Arg, Ser, or Thr, 15 is Ala, Gly, Pro, Arg, or Tyr

<400> 5
 Xaa Tyr Xaa Cys Xaa Xaa Gly Pro Xaa Thr Trp Xaa Cys Xaa Xaa Xaa
 1 5 10 15

<210> 6

<211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> variant
 <222> 1, 3, 5, 6, 9, 12, 14, 15, 16
 <223> Description of Artificial Sequence: 6, 9, 12, 16 is any L or D amino acid,
 1 is Asp, Glu, Leu, Asn, Ser, Thr, or Val, 3 is Ala, His, Lys, Leu, Met, Ser, or
 Thr, 5 is Arg or His, 14 is Lys, Arg, Ser or Thr, 15 is Pro

<400> 6
 Xaa Tyr Xaa Cys Xaa Xaa Gly Pro Xaa Thr Trp Xaa Cys Xaa Xaa Xaa
 1 5 10 15

<210> 7
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 7
 Gly Gly Leu Tyr Leu Cys Arg Phe Gly Pro Val Thr Trp Asp Cys Gly
 1 5 10 15

Tyr Lys Gly Gly
 20

<210> 8
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 8
 Gly Gly Thr Tyr Ser Cys His Phe Gly Pro Leu Thr Trp Val Cys Lys
 1 5 10 15

Pro Gln Gly Gly
 20

<210> 9
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic

peptide

<400> 9

Gly	Gly	Asp	Tyr	His	Cys	Arg	Met	Gly	Pro	Leu	Thr	Trp	Val	Cys	Lys
1					5				10					15	

Pro	Leu	Gly	Gly
			20

<210> 10

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 10

Val	Gly	Asn	Tyr	Met	Cys	His	Phe	Gly	Pro	Ile	Thr	Trp	Val	Cys	Arg
1					5				10					15	

Pro	Gly	Gly	Gly
			20

<210> 11

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 11

Gly	Gly	Val	Tyr	Ala	Cys	Arg	Met	Gly	Pro	Ile	Thr	Trp	Val	Cys	Ser
1					5				10					15	

Pro	Leu	Gly	Gly
			20

<210> 12

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 12

Val	Gly	Asn	Tyr	Met	Ala	His	Met	Gly	Pro	Ile	Thr	Trp	Val	Cys	Arg
1					5				10					15	

Pro Gly Gly

<210> 13
 <211> 18
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 13
 Gly Gly Thr Tyr Ser Cys His Phe Gly Pro Leu Thr Trp Val Cys Lys
 1 5 10 15

Pro Gln

<210> 14
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 14
 Gly Gly Leu Tyr Ala Cys His Met Gly Pro Met Thr Trp Val Cys Gln
 1 5 10 15

Pro Leu Arg Gly
 20

<210> 15
 <211> 22
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 15
 Thr Ile Ala Gln Tyr Ile Cys Tyr Met Gly Pro Glu Thr Trp Glu Cys
 1 5 10 15

Arg Pro Ser Pro Lys Ala
 20

<210> 16
 <211> 13

<212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 16
 Tyr Ser Cys His Phe Gly Pro Leu Thr Trp Val Cys Lys
 1 5 10

<210> 17
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 17
 Tyr Cys His Phe Gly Pro Leu Thr Trp Val Cys
 1 5 10

<210> 18
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 18
 Ser Cys His Phe Gly Pro Leu Thr Trp Val Cys Lys
 1 5 10

<210> 19
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 19
 Gly Gly Thr Ala Ser Cys His Phe Gly Pro Leu Thr Trp Val Cys Lys
 1 5 10 15

Pro Gln Gly Gly
 20

<210> 20
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 20
 Gly Gly Thr Tyr Ser Cys His Phe Ala Pro Leu Thr Trp Val Cys Lys
 1 5 10 15

Pro Gln Gly Gly
 20

<210> 21
 <211> 19
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 21
 Gly Gly Thr Tyr Ser Cys Phe Gly Pro Leu Thr Trp Val Cys Lys Pro
 1 5 10 15

Gln Gly Gly

<210> 22
 <211> 18
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 22
 Thr Tyr Ser Cys His Phe Gly Pro Leu Thr Trp Val Cys Lys Pro Gln Gly
 1 5 10 15

Gly

<210> 23
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 23

Thr Tyr Ser Cys His Phe Gly Pro Leu Thr Trp Val Cys Lys Pro Gln
 1 5 10 15

<210> 24

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 24

Tyr Ser Cys His Phe Gly Pro Leu Thr Trp Val Cys Lys Pro
 1 5 10

<210> 25

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 25

Tyr Ser Cys His Phe Gly Pro Leu Thr Trp Val Cys
 1 5 10

<210> 26

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 26

Tyr Ser Cys His Phe Gly Ala Leu Thr Trp Val Cys Lys
 1 5 10

<210> 27

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 27
 Gly Gly Cys Arg Ile Gly Pro Ile Thr Trp Val Cys Gly Gly
 1 5 10

<210> 28
 <211> 8
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 28
 His Phe Gly Pro Leu Thr Trp Val
 1 5

<210> 29
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 29
 Gly Gly Thr Thr Ser Cys His Phe Gly Pro Leu Thr Trp Val Cys Lys Pro
 1 5 10 15

Gln Gly Gly
 20

<210> 30
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 30
 Gly Gly Thr Phe Ser Cys His Phe Gly Pro Leu Thr Trp Val Cys Lys Pro
 1 5 10 15

Gln Gly Gly
 20

<210> 31
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 31

Gly Gly Thr Tyr Ser Cys His Phe Gly Ala Leu Thr Trp Val Cys Lys Pro
1 5 10 15

Gln Gly Gly
20

<210> 32

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 32

Gly Gly Thr Tyr Ser Cys His Phe Gly Pro Ala Thr Trp Val Cys Lys Pro
1 5 10 15

Gln Gly Gly
20

<210> 33

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 33

Gly Gly Thr Tyr Ser Cys His Phe Gly Pro Leu Ala Trp Val Cys Lys Pro
1 5 10 15

Gln Gly Gly
20

<210> 34

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 34

Gly Gly Thr Tyr Ser Cys His Phe Gly Pro Leu Thr Ala Val Cys Lys Pro
 1 5 10 15

Gln Gly Gly
 20

<210> 35

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 peptide

<400> 35

Gly Gly Thr Tyr Ser Cys His Phe Gly Pro Leu Thr Phe Val Cys Lys Pro
 1 5 10 15

Gln Gly Gly
 20

<210> 36

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
 peptide

<400> 36

Gly Gly Thr Tyr Ser Cys His Phe Gly Pro Leu Thr Trp Val Cys Lys Ala
 1 5 10 15

Gln Gly Gly
 20

<210> 37

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<221> variant

<222> 4

<223> Description of Artificial Sequence: D-Tyr

<400> 37

Gly Gly Thr Xaa Ser Cys His Phe Gly Pro Leu Thr Trp Val Cys Lys Pro
 1 5 10 15

Gln Gly Gly
 20

<210> 38
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> variant
 <222> 4
 <223> Description of Artificial Sequence: p-NO₂-Phe

<400> 38
 Gly Gly Thr Xaa Ser Cys His Phe Gly Pro Leu Thr Trp Val Cys Lys Pro
 1 5 10 15
 Gln Gly Gly
 20

<210> 39
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> variant
 <222> 4
 <223> Description of Artificial Sequence: p-NH₂-Phe

<400> 39
 Gly Gly Thr Xaa Ser Cys His Phe Gly Pro Leu Thr Trp Val Cys Lys Pro
 1 5 10 15
 Gln Gly Gly
 20

<210> 40
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> variant
 <222> 4
 <223> Description of Artificial Sequence: p-F-Phe

<400> 40
 Gly Gly Thr Xaa Ser Cys His Phe Gly Pro Leu Thr Trp Val Cys Lys Pro
 1 5 10 15
 Gln Gly Gly
 20

<210> 41

<211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> variant
 <222> 4
 <223> Description of Artificial Sequence: p-I-Phe

<400> 41
 Gly Gly Thr Xaa Ser Cys His Phe Gly Pro Leu Thr Trp Val Cys Lys Pro
 1 5 10 15

Gln Gly Gly
 20

<210> 42
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> variant
 <222> 4
 <223> Description of Artificial Sequence: 3,5-dibromo-Tyr

<400> 42
 Gly Gly Thr Xaa Ser Cys His Phe Gly Pro Leu Thr Trp Val Cys Lys Pro
 1 5 10 15

Gln Gly Gly
 20

<210> 43
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> variant
 <222> 1
 <223> Description of Artificial Sequence: Ac-Gly

<400> 43
 Xaa Gly Thr Tyr Ser Cys His Phe Gly Pro Leu Thr Trp Val Cys Lys Pro
 1 5 10 15

Gln Gly Gly
 20

<210> 44
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide (Xaa is p-I-Phe)

<400> 44

Gly Gly Leu Tyr Ala Cys His Met Gly Pro Met Thr Trp Val Cys Gln Pro
1 5 10 15

Leu Gly Gly
20

<210> 45

<211> 22

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide (Xaa is p-I-Phe)

<400> 45

Leu Gly Arg Lys Tyr Ser Cys His Phe Gly Pro Leu Thr Trp Val Cys Gln
1 5 10 15

Pro Ala Lys Lys Asp
20

<210> 46

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 46

Gly Gly Thr Tyr Ser Glu His Phe Gly Pro Leu Thr Trp Val Lys Lys Pro
1 5 10 15

Gln Gly Gly
20

<210> 47

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<221> variant

<222> 1, 2, 3, 4, 5, 6, 7, 8

<223> Description of Artificial Sequence: 1 is Arg, His, Tyr, Leu, Trp, 2 is Phe, Met, or Ile, 3 is Gly or Ala, 4 is Pro or Ala, 5 is any L or D amino acid, 6 is Thr or Ala, 7 is Trp, Ala, or Phe, 8 is Asp, Val, Glu, Ile, or Leu

<400> 47

Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1 5

<210> 48

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<221> variant

<222> 1, 2, 5, 8

<223> Description of Artificial Sequence: 1 is Arg, His, Tyr, Leu, Trp, 2 is Phe, Met, or Ile, 5 is any L or D amino acid, 8 is Asp, Val, Glu, Ile, or Leu

<400> 48

Xaa Xaa Gly Pro Xaa Thr Trp Xaa
1 5

<210> 49

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<221> variant

<222> 1, 2, 3, 4, 5, 8, 11, 12

<223> Description of Artificial Sequence: 1 is D-Tyr, p-NO₂-Phe, p-NH₂-Phe, p-F-Phe, p-I-Phe, or 3,5-dibromo-Tyr, 2 and 8 is any L or D amino acid, 3 is Cys, Glu, Ala, (-amino-(-bromobutyric acid, or homocysteine, 4 is Arg, His, Tyr, Leu, or Trp, 5 is Phe, Met, or Ile, 12 is Cys, Lys, Ala, (-amino-(-bromobutyric acid, or homocysteine, 11 is Asp, Glu, Val, Ile, or Leu

<400> 49

Xaa Xaa Xaa Xaa Xaa Gly Pro Xaa Thr Trp Xaa Xaa
1 5 10